



JOHN ELIAS BALDACCI

GOVERNOR

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0016

DAVID A. COLE

COMMISSIONER

December 7, 2004
Subject: Bethel
Project No. STP-1051(611)X
PIN 10516.11
Bid Amendment No. 4

Dear Sir/Ms.:

Please make the following changes to your bid documents:

Delete in its entirety the "Schedule of Items" with dates of 041124 & 041130, and replace with the new attached "Schedule of Items" five pages, dated 041207.

Delete the first page of the "Contract Agreement, Offer & Award" (both copies) and replace with the attached first page of the "Contract Agreement, Offer & Award" (both copies) completion date of **October 21, 2005**.

Add the attached one page entitled "Special Provision Section 106 Quality (Quality Level Analysis)" dated September 29, 2004.

On "Special Provision Section 107 Time" page 1 of 1, in pen and ink delete **September 30, 2005** and replace with **October 21, 2005**.

Add the attached five pages entitled "Special Provision Section 502 Structural Concrete (Quality Level Analysis)" dated September 29, 2004.

Please make the following changes in pen and ink to the Plan Sheets:

On plan sheet No. 2 of 33 entitled "Estimated Quantities" under the Main Path- Base Bid section, Item No. 203.20 Common Excavation delete **90 CY** and replace with **270 CY- 180 CY is anticipated to be grubbing in fill**.

On plan sheet No. 2 of 33 entitled "Estimated Quantities" under the Main Path- Base Bid Section, Item No. 203.24 Common Borrow, delete 4800 CY and replace with 4600 CY.

On plan sheet No. 2 of 33 entitled "Estimated Quantities" under the Main Path- Base Bid Section, Item No. 502.239 -Structural Concrete Piers, for informational purposes the estimated quantity for this Item is 265 CY, for bidding purposes this Item shall be bid 1 -LS as referenced in the "Schedule of Items".



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On plan sheet No. 2 of 33 entitled "Estimated Quantities" under the Main Path- Base Bid Section, Item No. 502.249 -Structural Concrete-Piers (Place under Water), for informational purposes the estimated quantity for this Item is 490 CY, for bidding purposes this Item shall be bid 1 -LS as referenced in the "Schedule of Items".

On plan sheet No. 2 of 33 entitled "Estimated Quantities" under the Spur Path- Bid Additive 1 Section, Item No. 203.20 Common Excavation, delete **15 CY** and replace with **48 CY - 33 CY of this quantity is anticipated to be grubbing in fill.**

The Department has received the following Requests for Information:

Q) Note 4 of the "Seal Cofferdam Notes" on sheet 29 of 33 talks about the seal is based on the water depth of 630.0'. It also states that if the water depth is higher the depth of seal will be adjusted. How will MDOT adjust Item 502.249, which is a lump sum Item? If you change to unit price, please check your quantity provided on plan sheet No.2 of 33.

R) *The water surface elevation of 630.00 was the approximate level of the water when the pier borings were taken, end of April 2004. If the Seal needs to be adjusted due to an increase in water elevation at the time of construction, the contractor shall be responsible for the associated cost. Item 502.249 shall remain a Lump Sum Item.*

Q) With the past history of ice and spring runoff in the areas of new bridge, why has MDOT set September 30, 2005 as a completion date? A mid late November 2005 completion date would still allow for snowmobile traffic as well as may reduce the cost of construction. Is it possible to change the completion date?

R) *Please see the new completion date of October 21, 2005 as referenced in this amendment.*

Q) The complexity of the project requires more evaluation by our bonding agent to meet MeDOT requirements for which we request MeDOT to grant a one week bid closing extension.

R) *The bid opening date will remain the same.*

Q) The construction and maintenance limits at the North end approach may be insufficient for access and as a lay down & work area. If so, will MeDOT arrange with(and compensate) adjacent property owners for increased usage space.

R) *No laydown areas will be provided by the Department outside the Project Limits.*

Consider these changes and information prior to submitting your bid on December 8, 2004.

Sincerely,

Diane Barnes for

Scott Bickford

Contracts & Specifications Engineer

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 010516.11

PROJECT(S): STP-1051(611)X

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS CTS	BID AMOUNT DOLLARS CTS
SECTION 0001 BRIDGE ITEMS				
0010	203.20 COMMON EXCAVATION	270.000		
		CY		
0020	203.21 ROCK EXCAVATION	20.000		
		CY		
0030	203.24 COMMON BORROW	4600.000		
		CY		
0040	203.25 GRANULAR BORROW	337.000		
		CY		
0050	206.082 STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	248.000		
		CY		
0060	206.092 STRUCTURAL ROCK EXCAVATION - MAJOR STRUCTURES	54.000		
		CY		
0070	206.10 STRUCTURAL EARTH EXCAVATION - PIERS	770.000		
		CY		
0080	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	520.000		
		CY		
0090	403.210 HOT MIX ASPHALT 9.5 MM HMA	130.000		
		T		
0100	501.231 DYNAMIC LOADING TEST	2.000		
		EA		

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 010516.11

PROJECT(S): STP-1051(611)X

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS CTS	BID AMOUNT DOLLARS CTS
0110	501.46 STEEL H-BEAM PILES 73 LBS/FT, DELIVERED	1939.000 LF		
0120	501.461 STEEL H-BEAM PILES 73 LBS/FT, IN PLACE	1939.000 LF		
0130	501.90 PILE TIPS	34.000 EA		
0140	501.91 PILE SPLICES	68.000 EA		
0150	501.92 PILE DRIVING EQUIPMENT MOBILIZATION	LUMP	LUMP	
0160	502.21 STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	134.000 CY		
0170	502.239 STRUCTURAL CONCRETE PIERS	LUMP	LUMP	
0180	502.249 STRUCTURAL CONCRETE PIERS (PLACED UNDER WATER)	LUMP	LUMP	
0190	503.12 REINFORCING STEEL, FABRICATED AND DELIVERED	59735.000 LB		
0200	503.13 REINFORCING STEEL, PLACING	59735.000 LB		
0210	504.716 BRIDGE STRUCTURE AND ASSEMBLY	LUMP	LUMP	

SCHEDULE OF ITEMS

REVISED:

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PROJECT(S): STP-1051(611)X

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0220	511.07 COFFERDAM: #1	LUMP	LUMP			
0230	511.07 COFFERDAM: #2	LUMP	LUMP			
0240	512.081 FRENCH DRAINS	LUMP	LUMP			
0250	514.06 CURING BOX FOR CONCRETE CYLINDERS	1.000 EA				
0260	515.21 PROTECTIVE COATING FOR CONCRETE SURFACES	LUMP	LUMP			
0270	603.15 12 INCH CULVERT PIPE OPTION I	5.000 LF				
0280	603.16 15 INCH CULVERT PIPE OPTION I	400.000 LF				
0290	604.072 CATCH BASIN TYPE A1-C	1.000 EA				
0300	604.13 24 INCH CATCH BASIN TYPE E	1.000 EA				
0310	604.15 MANHOLE	1.000 EA				
0320	607.22 CEDAR RAIL FENCE	520.000 LF				

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS CTS	BID AMOUNT DOLLARS CTS
0330	610.08 PLAIN RIPRAP	580.000 CY		
0340	615.07 LOAM	120.000 CY		
0350	618.1401 SEEDING METHOD NUMBER 2 - PLAN QUANTITY	19.000 UN		
0360	619.1201 MULCH - PLAN QUANTITY	19.000 UN		
0370	629.05 HAND LABOR, STRAIGHT TIME	20.000 HR		
0380	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20.000 HR		
0390	631.171 TRUCK - SMALL (INCLUDING OPERATOR)	20.000 HR		
0400	639.18 FIELD OFFICE TYPE A	1.000 EA		
0410	652.39 WORK ZONE TRAFFIC CONTROL	LUMP	LUMP	
0420	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP	LUMP	
0430	659.10 MOBILIZATION	LUMP	LUMP	

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 010516.11

PROJECT(S): STP-1051(611)X

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS CTS	BID AMOUNT DOLLARS CTS
0435	845.10 STRUCTURAL STEEL UTILITY SUPPORT	LUMP	LUMP	
SECTION 0001 TOTAL				
SECTION 0002 SPUR PATH - BID ADDITIVE #1				
0440	203.20 COMMON EXCAVATION	48.000 CY		
0450	203.24 COMMON BORROW	950.000 CY		
0460	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	80.000 CY		
0470	403.210 HOT MIX ASPHALT 9.5 MM HMA	18.000 T		
0480	615.07 LOAM	20.000 CY		
0490	618.1401 SEEDING METHOD NUMBER 2 - PLAN QUANTITY	3.000 UN		
0500	619.1201 MULCH - PLAN QUANTITY	3.000 UN		
SECTION 0002 TOTAL				
TOTAL BID				

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and

_____ a corporation or other legal entity organized under the laws of the State of Maine, with its principal place of business located at _____

The Department and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, PIN No. **10516.11** for a **Pedestrian Bicycle Bridge** in the town of **Bethel**, County of **Oxford**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before **October 21, 2005**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of December 2002.

C. Price.

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C. Price.

Bethel
PIN 10516.00
September 29, 2004

SPECIAL PROVISION
SECTION 106
QUALITY
(Quality Level Analysis)

The first formula under Item H under Subsection 106.7.1, Standard Deviation Method, of the 2002 Revision of the Standard Specifications is deleted and replaced with the following:

Method A: $PF = [32.5 + (\text{Quality Level} * 0.75)] * 0.01$

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(Quality Level Analysis)

The second sentence of 502.01, Description, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following:

For METHOD A Statistical Acceptance, or METHOD B Statistical Acceptance, the work shall conform to the Contractor's approved Quality Control (QC) Plan and Quality Assurance (QA) provisions, in accordance with these Specifications and the requirements of Section 106 - Quality.

TABLE 1, under Subsection 502.05, Composition and Proportioning, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following:

TABLE 1- Methods A and B

Concrete CLASS	Compressive Strength (PSI)		Permeability (COULOMBS)		Entrained Air (%)		Notes
	LSL	USL	LSL	USL	LSL	USL	
S	2,900	N/A	N/A	N/A	6.0	8.5	1, 5
A	4,350	-----	-----	2,400	6.0	8.5	1,2,5,6
P	-----	-----	-----	-----	4	6	1,2,3,4,5
LP	5,075	-----	-----	2,000	6.0	8.5	1,2,5,6
Fill	2,900	N/A	N/A	N/A	N/A	N/A	6

Subsection 502.0503, Quality Assurance METHOD B, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following:

502.0503 Quality Assurance METHOD B The Department will determine the acceptability of the concrete through a quality assurance program.

The Department will take Quality Assurance samples a minimum of once per subplot on a statistically random basis. Quality Assurance tests will include compressive strength, air content and permeability.

Concrete sampling for quality assurance tests will be taken at the discharge point, with pumped concrete sampling taken at the discharge end of the pump line.

Lot Size A lot size shall consist of the total quantity represented by each class of concrete in the Contract, except in the case when the same class of concrete is paid for under both lump sum items and unit price items in the Contract; in this case, the lump sum item quantities shall comprise 1 lot and the unit price item quantities shall comprise a separate lot. A lot shall consist of a minimum of 3 and a maximum of 10 sublots. If a lot is comprised of more than 10 sublots, sized in accordance with Table #3, then this quantity shall be divided equally into 2, or more, lots such that there is a minimum of 3 and a maximum of 10 sublots per lot. If there is insufficient quantity in a lot to meet the recommended minimum subplot size, then the lot shall be divided into 3 equal sublots.

Sublot Size, General The size of each subplot shall be determined in accordance with Table #3. The Resident may vary subplot sizes based on placement sizes and sequence.

Sublot Size, Unit Price Items Sublot sizes will initially be determined from estimated quantities. When the actual final quantity of concrete is determined: If there is less than one-half the estimated subplot quantity in the remaining quantity, then this quantity shall be combined with the previous subplot, and no further Acceptance testing will be performed; if there is more than one-half the estimated subplot quantity in the remaining quantity, then this quantity shall constitute the last subplot and shall be represented by Acceptance test results. If it becomes apparent part way through a lot that, due to an underrun in quantity, there will be an insufficient quantity of concrete to comprise three sublots, then the Resident may adjust the sizes of the remaining sublots and select new sample locations based on the revised estimated quantity of concrete remaining in the lot.

Sublot Size, Lump Sum Items Each lot shall be divided into sublots of equal size, based on the estimated quantity of concrete.

TABLE 3

Quantity m ³ [cy]	Recommended Sublot Size m ³ [cy]
0-400 [0-500]	40 [50]
401-800 [501-1000]	60 [75]
801-1600 [1001-2000]	80 [100]
1601 [2001] or greater	200 [250]

Determination of the concrete cover over reinforcing steel for structural concrete shall be made prior to concrete being placed in the forms. Bar supports, chairs, slab bolsters, and side form spacers shall meet the requirements of Concrete Reinforcing Steel Institute (CRSI) Manual of Standard Practice, Chapter 3 Section 2.5 Class 1, Section 2.6 Class 1A, or Section 4. All supports shall meet the requirements for type and spacing as stated in the CRSI Manual of Standard Practice, Chapter 3. Concrete will not be placed until the placing of the reinforcing steel and supports have been approved by the Resident. If the Contractor fails to secure Department approval prior to placement, the Contractor's failure shall be cause for removal and replacement at the Contractor's expense. The Contractor shall notify the Resident, at least 48 hours prior to the placement, when the reinforcing steel will be ready for checking. Sufficient time must be allowed for the checking process and any needed repairs.

Evaluation of materials will be made using the specification limits in Table 1.

Compressive strength tests will be completed by the Department in accordance with AASHTO-T22 at ≥ 28 days, except that no slump will be taken. The average of two concrete cylinders per sublot will constitute a test result and this average will be used to determine the compressive strength for pay adjustment computations.

Testing for Entrained Air in concrete, at the rate of one test per sublot, shall be in accordance with AASHTO T152.

Rapid Chloride Permeability test specimens will be completed by the Resident in accordance with AASHTO T-277 at an age ≥ 56 days. Two 100 mm x 200 mm [4 in x 8 in] cylinders will be taken per sublot placed.

Surface Tolerance, Alignment and Trueness, Plumb and Batter, and Finish will be measured as described in Section 502.0502.

Rejection by Resident For an individual sublot with a calculated pay factor of less than 0.80, the Department will, at its sole discretion:

A. Require the Contractor to remove and replace the entire affected placement with concrete meeting the Contract requirements at no additional expense to the Department, or

B. Accept the material, at a reduced payment as determined by the Department. (See also Section 502.191)

For a lot in progress, the Contractor shall discontinue operations whenever one or more of the following occurs:

- A. The pay factor for any property drops below 1.00 and the Contractor is taking no corrective action
- B. The pay factor for any property is less than 0.90
- C. The Contractor fails to follow the QC Plan

Paragraph E, under Subsection 502.18, Method of Measurement, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following:

E. For the purposes of making pay adjustments under Method A, quantities of lots and sublots shall be determined as outlined under Section 502.0502 - Quality Assurance Method A, Section 502.0503- Quality Assurance Method B, and under Section 502.19 - Basis of Payment.

The first sentence in the seventh paragraph of Subsection 502.19, Basis of Payment, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following:

Pay adjustments will be made only for cast-in-place concrete accepted under Method A and Method B.

Subsection 502.191, Pay Adjustment for Compressive Strength, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following:

502.191 Pay Adjustment for Compressive Strength Compressive strength tests will be completed by the Department in accordance with AASHTO-T22 at 28 days.

Pay factors (PF) for pay adjustments for compressive strength will be determined using the Quality Level Analysis as specified in Section 106.

If three consecutive tests fail to meet the below listed strength requirements, the Contractor shall submit remedial actions acceptable to the Department, at no additional cost. These remedial actions shall be taken until the source of the problem can be identified and corrected or new trial batches can be performed. When the average of three consecutive tests falls to less than 1.0 MPa [150 psi] above the specified strength or any single test more than 1.4 MPa [200 psi] below the specified strength, the Resident will notify the Contractor to make corrective changes in the materials, mix proportions, or in the concrete manufacturing procedures before placing additional concrete of the same class. Such changes shall be subject to the approval of the Resident.

Subsection 502.192, Pay Adjustment for Chloride Permeability, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following :

502.192 Pay Adjustment for Chloride Permeability Pay factors (PF) for pay adjustments for Chloride Permeability will be determined using the Quality Level Analysis as specified in Section 106.

Values greater than 4000 coulombs shall be subject to rejection and replacement at no additional cost to the Department.

Subsection 502.193, Pay Adjustment for Air Content, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following:

502.193 Pay Adjustment for Air Content Pay factors (PF) for pay adjustments for air content will be determined using the Quality Level Analysis as specified in Section 106.

The following subsection is added to the 2002 Revision of the Standard Specifications:

502.195 Pay Adjustments for Compressive Strength, Chloride Permeability and Air Content The Composite Pay Factor (CPF) for each lot of concrete shall be computed as follows:

$$\text{CPF} = [(\text{Compressive Strength PF}-1)(0.20)] + [(\text{Air Content PF}-1)(0.40)] \\ + [(\text{Chloride Permeability PF}-1)(0.40)]$$

The pay adjustment for each lot of concrete shall be computed as follows:

$$\text{Lot Pay Adjustment} = P \times \text{CPF} \times \text{Lot Size}$$

There will be no positive pay adjustments for Method B Concrete.